1 atgatetttg gtgtg. Lac aaggeagaac ttagaceatg ttagagaate aaaaacaggt 61 tcttcaggca ttatagtaag gttaagcact aaccatttcc ggctgacatc ccqtccccaq 121 tgggccttat atcagtatca cattgactat aacccactga tggaagccag aagactccgt 181 tcagctcttc tttttcaaca cgaagatcta attggaaagt gtcatgcttt tgatggaacg 241 atattatttt tacctaaaag actacagcaa aaggttactg aagtttttag taagacccgg 301 aatggagagg atgtgaggat aacgatcact ttaacaaatg aacttccacc tacatcacca 361 acttgtttgc agttctataa tattattttc aggaggcttt tgaaaatcat gaatttgcaa 421 caaattggac gaaattatta taacccaaat gacccaattg atattccaag tcacaggttg 481 gtgatttggc ctggcttcac tacttccatc cttcagtatg aaaacagcat catgctctgc 541 actgacgtta gccataaagt ccttcgaagt gagactgttt tggatttcat gttcaacttt 601 tatcatcaga cagaagaaca taaatttcaa gaacaagttt ccaaagaact aataggttta 661 gttgttctta ccaagtataa caataagaca tacagagtgg atgatattga ctgggaccag 721 aatcccaaga gcacctttaa gaaagccgac ggctctgaag tcagcttctt agaatactac 781 aggaagcaat acaaccaaga gatcaccgac ttgaagcagc ctgtcttggt cagccagccc 841 aagagaagge ggggeeetgg ggggaeactg ceagggeetg ceatgeteat teetgagete 901 tgctatctta caggtctaac tgataaaatg cgtaatgatt ttaacgtgat gaaagactta 961 gccgttcata caagactaac tccagagcaa aggcagcgtg aagtgggacg actcattgat 1021 tacattcata aaaacgataa tgttcaaagg gagcttcgag actggggttt gagctttgat 1081 tccaacttac tgtccttctc aggaagaatt ttgcaaacag aaaagattca ccaaggtgga 1141 aaaacatttg attacaatcc acaatttgca gattggtcca aagaaacaag aggtgcacca 1201 ttaattagtg ttaagccact agataactgg ctgttgatct atacgcgaag aaattatgaa 1251 gcagccaatt cattgataca aaatctattt aaagttacac cagccatggg catgcaaatg 1321 agaaaagcaa taatgattga agtggatgac agaactgaag cctacttaag agtcttacag $1\overline{\cancel{3}}$ l caaaaggtca cagcagacac ccagatagtt gtctgtctgt tgtcaagtaa tcggaaggac 1441 aaatacgatg ctattaaaaa atacctgtgt acagattgcc ctaccccaag tcagtgtgtg 1501 gtggcccgaa ccttaggcaa acagcaaact gtcatggcca ttgctacaaa gattgcccta 1561 cagatgaact gcaagatggg aggagagctc tggagggtgg acatccccct gaagctcgtg 1621 atgategttg geategattg ttaccatgae atgacagetg ggeggaggte aategeagga 1681 tttgttgcca gcatcaatga agggatgacc cgctggttct cacgctgcat atttcaggat 1941 agaggacagg agctggtaga tgggctcaaa gtctgcctgc aagcggctct gagggcttgg 1801 aatagetgea atgagtaeat geeeageegg ateategtgt acegegatgg egtaggagae 1861 ggccagctga aaacactggt gaactacgaa gtgccacagt ttttggattg tctaaaatcc 1921 attggtagag gttacaaccc tagactaacg gtaattgtgg tgaagaaaag agtgaacacc 1981 agattttttg ctcagtctgg aggaagactt cagaatccac ttcctggaac agttattgat 2041 gtagaggtta ccagaccaga atggtatgac ttttttatcg tgagccaggc tgtgagaagt 2101 ggtagtgttt ctcccacaca ttacaatgtc atctatgaca acagcggcct gaagccagac 2161 cacatacage gettgaceta caagetgtge cacatetatt acaaetggee aggtgteatt 2221 cgtgttcctg ctccttgcca gtacgcccac aagctggctt ttcttgttgg ccagagtatt 2281 cacagagage caaatetgte actgteaaae egeetttaet acetetaa

180

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120

150

300

360

390

450

480

Arg Thr Glu Ala Tyr Leu Arg Val Leu Gln Gln Lys Val Thr Ala Asp Thr Gln Ile Val Val Cys Leu Leu Ser Ser Asn Arg Lys Asp

Lys Tyr Asp Ala lle Lys Lys Tyr Leu Cys Thr Asp Cys Pro Thr Pro Ser Gln Cys Val Val Ala Arg Thr Leu Gly Lys Gln Gln Thr

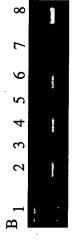
Figure 1

Val Met Ala Ile Ala Thr Lys Ile Ala Leu Gln Met Asn Cys Lys Met Gly Gly Glu Leu Trp Arg Val Asp Ile Pro Leu Lys Leu Val	540
Met Ile Val Gly Ile Asp Cys Tyr His Asp Met Thr Ala Gly Arg Arg Ser Ile Ala Gly Phe Val Ala Ser Ile Asn Glu Gly Met Thr	570
Arg Trp Phe Ser Arg Cys Ile Phe Gln Asp Arg Gly Gln Glu Leu Val Asp Gly Leu Lys Val Cys Leu Gln Ala Ala Leu Arg Ala Trp	009 0
Asn Ser Cys Asn Glu Tyr Met Pro Ser Arg Ile Ile Val Tyr Arg Asp Gly Val Gly Asp Gly Gln Leu Lys Thr Leu Val Asn Tyr Glu	630
Val Pro Gln Phe Leu Asp Cys Leu Lys Ser Ile Gly Arg Gly Tyr Asn Pro Arg Leu Thr Val Ile Val Val Lys Lys Arg Val Asn Thr	099
Arg Phe Phe Ala Gln Ser Gly Gly Arg Leu Gln Asn Pro Leu Pro Gly Thr Val Ile Asp Val Glu Val Thr Arg Pro Glu Trn Tvr Asm	069
Phe Phe Ile Val Ser Glu Ala Val Arg Ser Glu Ser Val Ser Dro Thr High This Act Vol 112 This Act	060
Ash Ash Ash Ash Ser Giy Ser van Ser i 10 i iii i 118 i yi Ash val 116 i yi Ash Ash Ser Giy Leu Lys Pro Asp	.720
His Ile Gln Arg Leu Thr Tyr Lys Leu Cys His Ile Tyr Tyr Asn Trp Pro Gly Val Ile Arg Val Pro Ala Pro Cys Gln Tyr Ala His	750
Lys Leu Ala Phe Leu Val Gly Gln Ser Ile His Arg Glu Pro Asn Leu Ser Leu Ser Asn Arg Leu Tyr Tyr Leu	775

Figure 1 Continued

PIWI	MADDQGRGRRRPLNEDDSSTSRGSGDGPRVKVFRGSSSGDPRADPRIEASRERRALEEAPR	C1.
	M F G R L M	91
HIWI	MGVNTRQNLDHV	
PIWI	REGGPPERKPWGDQYDYLNTRPVELVSKKGTDGVPVMLQTNFFRLKTKPEWRIVHYHVEFE K E SK G+ G+ V L TN FRL ++P+W + YH+++	122
HIWI.		
PIWI	PSIENPRVRMGVLSNHANLLGSGYLFDGLQLFTTRKFEQEITVLSGKSKLDIEYKISIKFV P +E R+R +L H +L+G + FDG LF ++ +Q++T + K++ + +I+I	183
HIWI		
PIWI	GFISCAEPRFLQVLNLILRRSMKGLNLELVGRNLFDPRAKIEIREFKMELWPGYETSIRQH + P LQ N+I RR +K +NL+ +GRN ++P I+I ++ +WPG+ TSI Q+	244
HIWI	NELPPTSPTCLQFYNIIFRRLLKIMNLQQIGRNYYNPNDPIDIPSHRLVIWPGFTTSILQY	
PIWI	EKDILLGTEITHKVMRTETIYDIMRRCSHNPARHQDEVRVNVLDLIVLTDYNNRTYRIN E I+L T+++HKV+R+ET+ D M H H Q++V ++ L+VLT YNN+TYR++	305
HIWI	ENSIMLCTDVSHKVLRSETVLDFMFNFYHQTEEHKFQEQVSKELIGLVVLTKYNNKTYRVD	
PIWI	DVDFGQTPKSTF-SCKGRDISFVEYYLTKYNIRIRDHNQPLLISK-NRDKALKTNASELVVD+D+QPKSTFG+SF+EYY+YNIDQPLLISK-NRDKALKTNASELVVD+D+D+QPKSTFG+SF+EYY+YNIDQPLLISK-NRDKALKTNASELVVD+D+D+QPKSTFG+SF+EYY+YNIDQPLLISK-NRDKALKTNASELVVD+D+D+QPKSTFG+SF+SF+SF+SF+SF+SF+SF+SF+SF+SF+SF+SF+SF+	366
HIWI	DIDWDQNPKSTFKKADGSEVSFLEYYRKQYNQEITDLKQPVLVSQPKRRRGPGGTLPGPAM	
PIWI	LIPELCRVTGLNAEMRSNFQLMRAMSSYTRMNPKQRTDRLRAFNHRLQNTPESVKVLR LIPELC +TGL +MR++F +M+ ++ +TR+ P+QR RL + H+ N LR	427
HIWI	LIPELCYLTGLTDKMRNDFNVMKDLAVHTRLTPEQRQREVGRLIDYIHKNDNVQRELR	
PIWI	DWNMELDKNVTEVQGRIIGQQNIVFHNGKVPAGENADWQRHFRDQRMLTTPSDGLDRW DW + D N+ GRI+ + I H G N ADW + R ++++ LD W	488
HIWI	DWGLSFDSNLLSFSGRILQTEKIHQGGKTFDYNPQFADWSKETRGAPLISVKPLDNW	
PIWI	+I +RN +L+ +L++ MG+++R I DDRT Y+R + V +D++++	
HIWI	LLIYTRRNYEAANSLIQNLFKVTPAMGMQMRK-AIMIEVDDRTEAYLRVLQQKVTADTQIV	
PIWI	LCLVPNDNAERYSSIKKRGYVDRAVPTQVVTLKTTKKPYSLMSIATKIAIQLNCKLGYTPW CL+ ++ ++Y +IKK D P+Q V +T K ++M+IATKIA+Q+NCK+G W	610
HIWI		
PIWI	MIELPLSGLMTIGFDIAKSTRDRKRAYGALIASMDLQQNSTYFSTVTECSAFDVLANTLWP +++PL +M +G D +R+ +AS++ + +FS L+ L	671
HIWI	RVDIPLKLVMIVGIDCYHDMTAGRRSIAGFVASIN-EGMTRWFSRCIFQDRGQELVDGLKV	
PIWI	MIAKALRQYQHEHRKLPSRIVFYRDGVSSGSLKQLFEFEVKDIIEKLKTEYARVQLSPPQL + ALR + ' + +PSRI+ YRDGV G LK L +EV ++ LK+ P+L	
HIWI	CLQAALRAWNSCNEYMPSRIIVYRDGVGDGQLKTLVNYEVPQFLDCLKSIGRGYNPRL	
PIWI	AYIVVTRSMNTRFFLNGQNPPPGTIVDDVITLPERYDFYLVSQQVRQGTVSPTSYNV IVV + +NTRFF QNP PGT++D +T PE YDF++VSQ VR G+VSPT YNV	
HIWI		٠
PIWI	LYSSMGLSPEKMQKLTYKMCHLYYNWSGTTRVPAVCQYAKKLATLVGTNLHSIPQNALEK +Y + GL P+ +Q+LTYK+CH+YYNW G RVPA CQYA KLA LVG ++H P +L	854
HIWI		
	KFYYL + YYL 859 Figure 1	
	Figure 1	

Continued



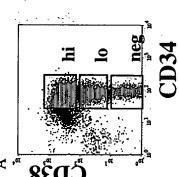
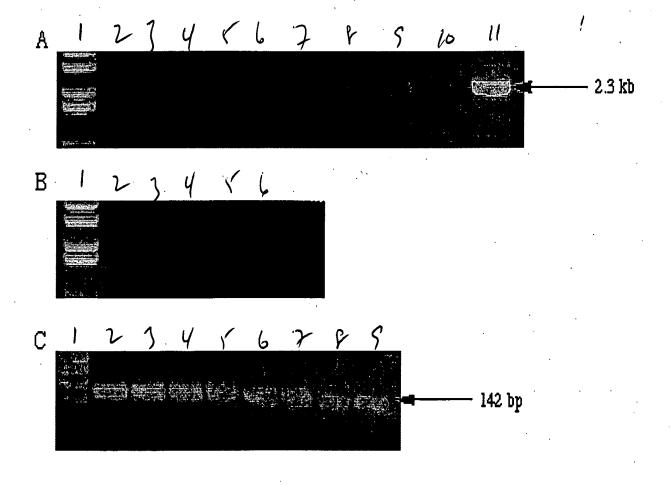


Figure 2



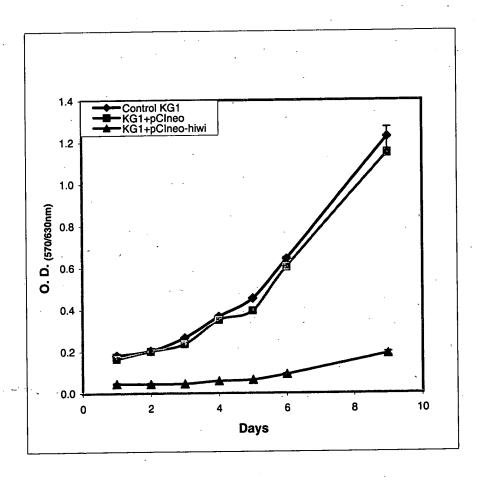
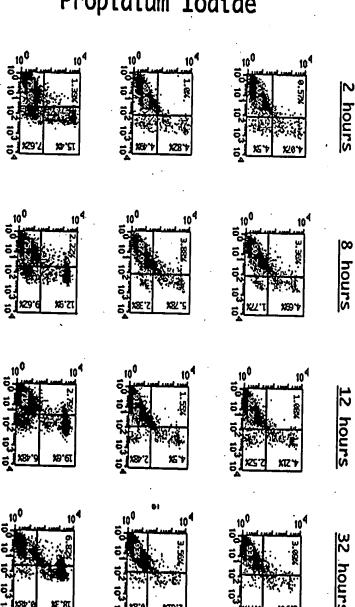


Figure 4

igure 5

Propidium Iodide



Annexin

Figure (

В

1 Kb Ladder
Heart
Brain
Kidney
Liver
Lung
Skeletal muscle
Thymus
Prostate
Testis

Leukocyte
Ovary
Small intestine
Placenta
Pancreas

1 Kb Ladder

Water control

1 Kb Ladder

Heart

Brain ·

Kidney

Liver

Lung

Skeletal muscle

Spleen

Thymus Water control

1 Kb Ladder

Figure 8

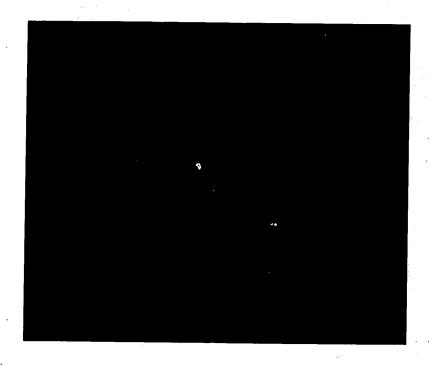


Figure 9

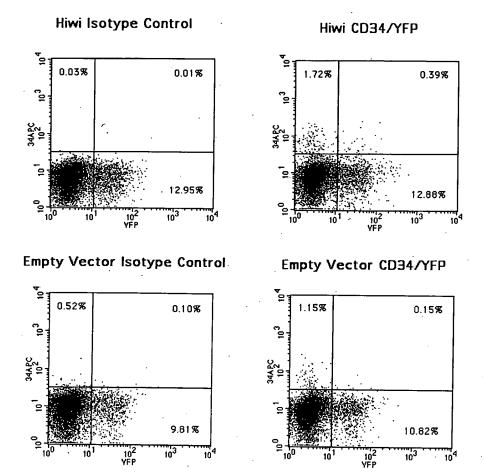


Figure 10